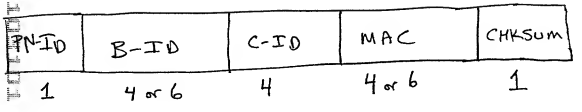

FIG. 1 PRIOR ART

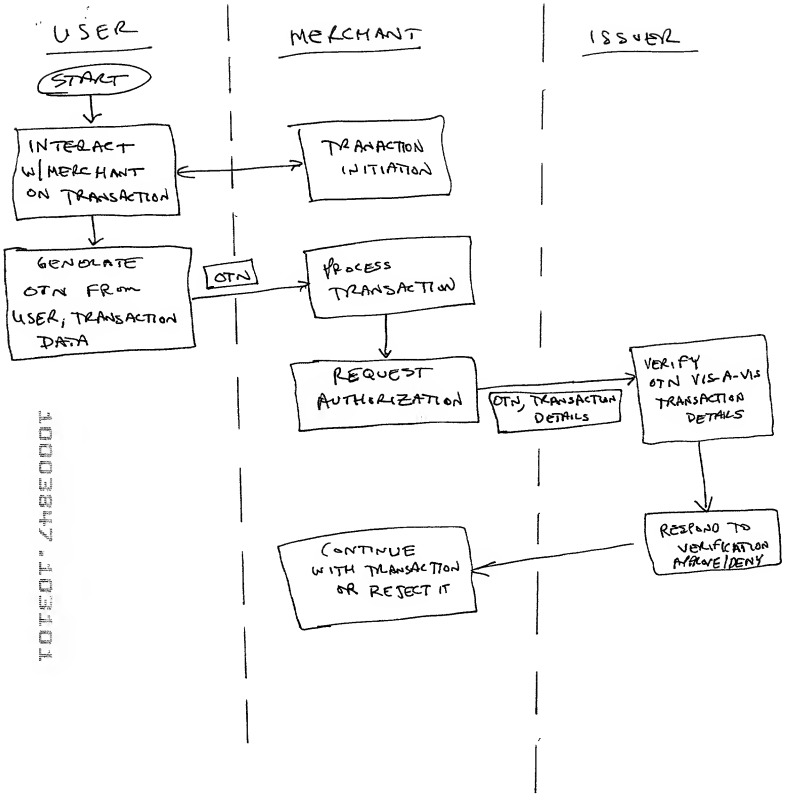

FIG. 2 PRIOR ART

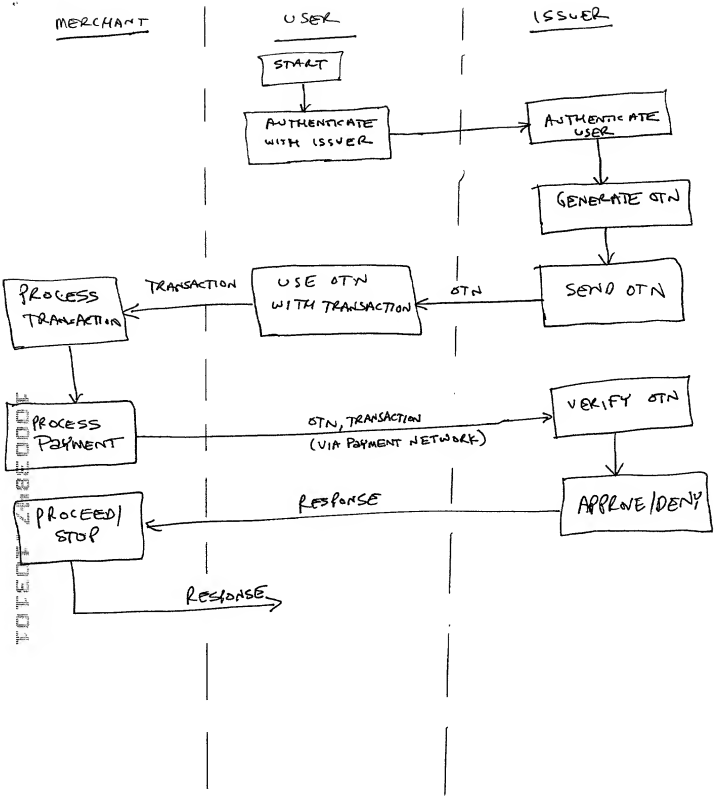

FIG. 3 PRIOR ART

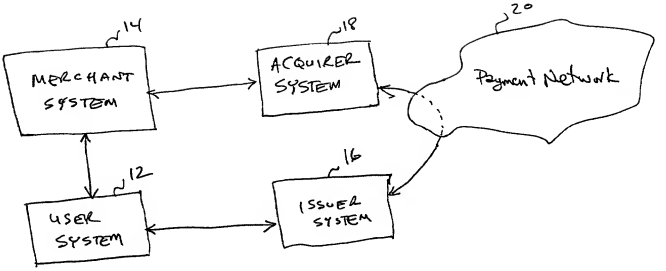

FIG. 4

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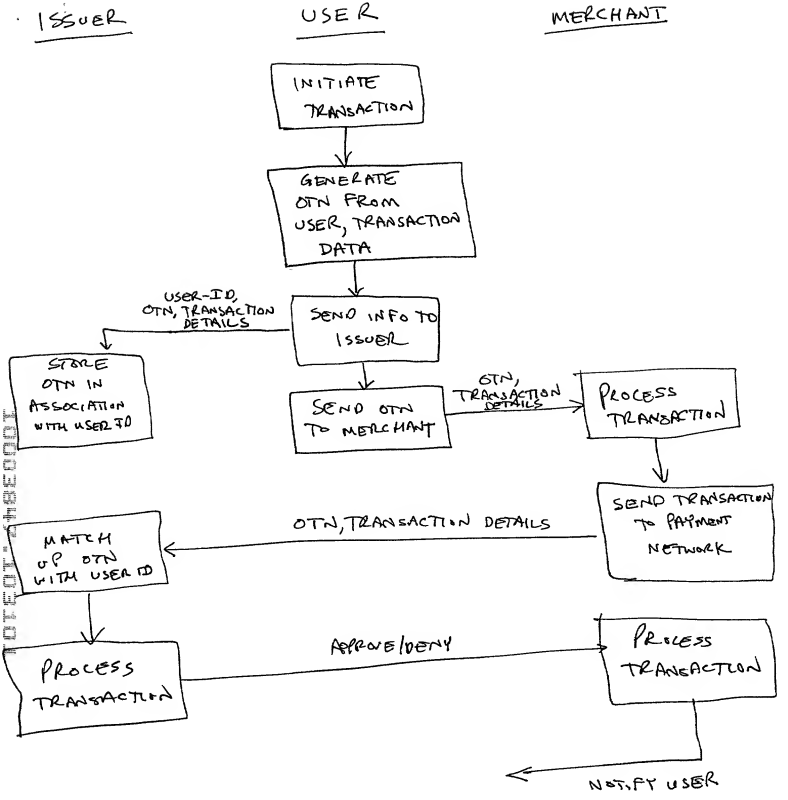
ISSUER
USER
MERCHANT
INITIATE TRANSACTION
GENERATE OTN FROM USER, TRANSACTION DATA
USER-ID, OTN, TRANSACTION DETAILS
SEND INFO TO ISSUER
STORE OTN IN ASSOCIATION WITH USER ID
SEND OTN TO MERCHANT
OTN, TRANSACTION DETAILS
PROCESS TRANSACTION
SEND TRANSACTION TO PAYMENT NETWORK
OTN, TRANSACTION DETAILS
MATCH UP OTN WITH USER ID
APPROVE/DENY
PROCESS TRANSACTION
PROCESS TRANSACTION
NOTIFY USER

FIG. 5

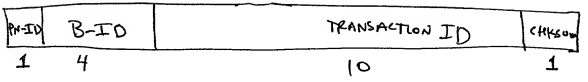

FIG. 6

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1000847.10101

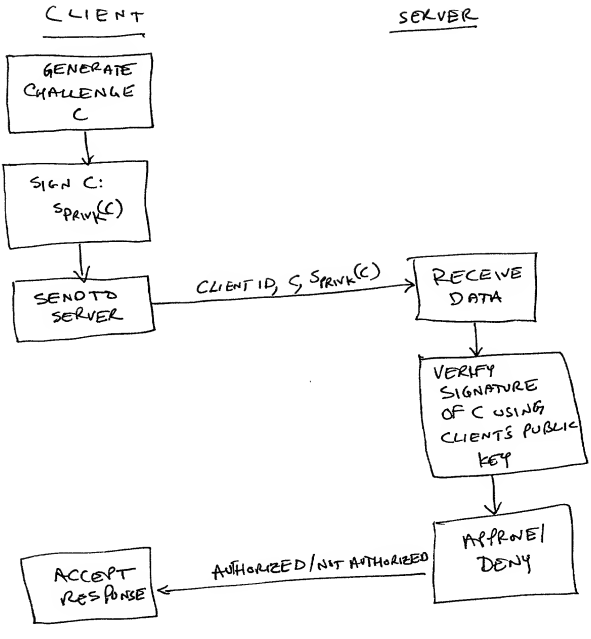

FIG. 7

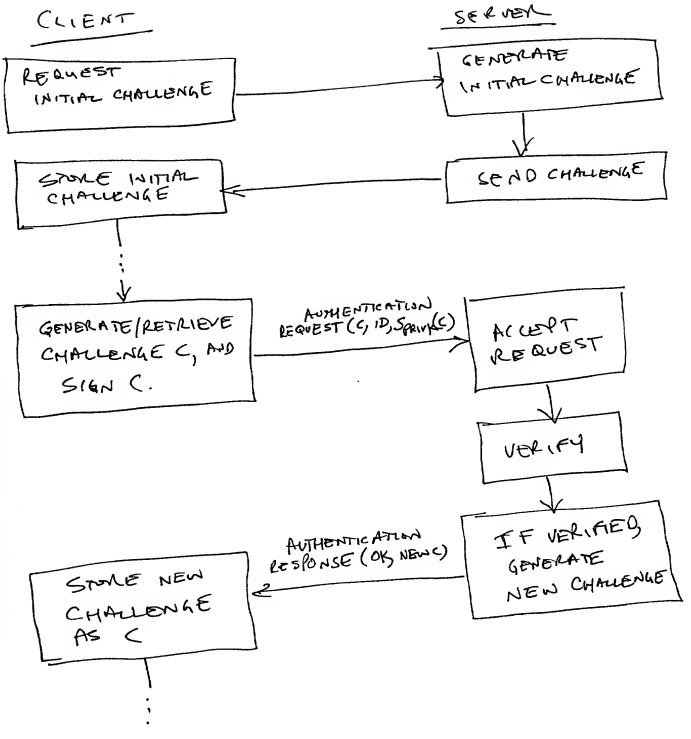
CLIENT
SERVER
REQUEST INITIAL CHALLENGE
GENERATE INITIAL CHALLENGE
STORE INITIAL CHALLENGE
SEND CHALLENGE
GENERATE/RETRIEVE CHALLENGE C, AND SIGN C.
AUTHENTICATION REQUEST (C, ID, SIG(C))
ACCEPT REQUEST
VERIFY
IF VERIFIED, GENERATE NEW CHALLENGE
AUTHENTICATION RESPONSE (OK, NEW C)
STORE NEW CHALLENGE AS C

FIG. 8